

December 12, 2003

Influenza, SARS Consent Form, and Hemodialysis-associated Infections

Dear Colleagues:

First, the Centers for Disease Control and Prevention (CDC) is requesting we collect information and specimens on any patient under the age of 18 with death or encephalopathy related to influenza. You may recall investigation efforts last year in Michigan linked 4 deaths in previously healthy children to influenza (MMWR September 5, 2003/Vol.52/No.35). To determine if a similar pattern is occurring in Michigan this year, we have asked physicians to notify us of the following:

A) In patients less than 18 years of age with laboratory-confirmed* influenza infection:

- 1. Death OR**
- 2. Acute encephalopathy (altered mental status or personality change in patient lasting >24 hours and occurring within 5 days of the onset of an acute febrile illness)**

B) In patients less than 18 years of age:

- 1. Any unexplained death with evidence of an infectious process**

Report cases to: Susan Spieldenner, RN, Bureau of Epidemiology @ 517-335-8165. After regular hours, call: 517-335-9030.

*Laboratory-confirmed influenza = positive influenza rapid antigen test OR positive direct or indirect fluorescence assay (DFA/IFA) OR viral culture positive for influenza.

We are asking clinical microbiology laboratories to assist this investigation by facilitating the submission of the following specimens:

Living Patients

Optimal Specimen

- Nasopharyngeal swab and oropharyngeal swab in both saline and viral transport, collected as early as possible in the patient's illness.
- Any respiratory specimens (pleural fluid, bronchoalveolar lavage, etc.) or CSF available (including swabs preserved in viral transport media).
- Sputum is an acceptable specimen for some testing, but should not be the only respiratory specimen sent.

Deceased Patients

Optimal Specimen

- Nasopharyngeal swab, tracheal or bronchoalveolar swab in both saline and viral transport, collected as soon as possible after patient's death.
- Any respiratory specimens available from upper airway, (pleural fluid, bronchoalveolar lavage, etc. including swabs preserved in viral transport media), or CSF.

Alternate Specimens

- Respiratory tract tissue for viral culture (in viral transport media).
- Frozen respiratory tract tissue for viral culture.

Additional Specimens

- Paraffin-embedded and/or formalin-fixed tissue from the upper airway (trachea, larynx, large bronchi/central lung) and lung as well as of the heart, brain/meninges and all major organs. Organs showing any histopathology are a priority.

All specimens should be directed to MDCH-Bureau of Laboratories (BOL) at: 3350 North Martin Luther King Jr. Blvd, Lansing, MI 48909. Telephone (517) 335-8067

Specimen Storage

- Fresh specimens should be kept at 2-8° C (for up to 48 hours) until received at MDCH. Specimens can be stored at -70 °C and transported on dry ice if transit time will be prolonged.
- Further specifics on the collection and transport of specimens can be obtained from the MDCH Laboratory Services Guide on line at www.Michigan.gov/mdchlab or call BOL @517-335-8067.
- If viral culture specimens are routinely sent to a reference laboratory, we ask that specimens be split and a portion sent to MDCH for testing, so that typing as well as further characterization by CDC can be completed if cultures are positive.

MDCH will perform respiratory pathogen panel testing of non-tissue respiratory specimens for the agents listed below#. All other testing will be forwarded to CDC by MDCH.

#(Legionella pneumophila, Legionella sp., Chlamydia pneumoniae, Mycoplasma pneumoniae, Respiratory Syncytial Virus, Influenza A & B, Adenovirus, Human Metapneumovirus, Enterovirus (CSF only), Rhinovirus.

Additionally, the rising incidence of community-acquired methicillin-resistant *Staphylococcus aureus* (CAMRSA) infections appears to have added a new wrinkle to the influenza epidemic that is spreading across the country. Post-influenza bacterial pneumonia was first recognized following the 1918 influenza pandemic infections and is not uncommon today. CDC is currently reporting cases of CAMRSA post-influenza pneumonia in the western part of the country. According to the MMWR published today (MMWR December 12, 2003/Vol.52/No.49:1197-1202), 3 deaths in children have been associated with secondary pneumonia caused by CAMRSA. Infection with this organism may complicate community-acquired post-viral pneumonia in which treatment is required unless the etiologic agent is demonstrated by culture, followed by susceptibility studies.

Secondly, CDC is also requesting reports of hemodialysis (HD)-associated cases of gram-negative bacteremia and fungemia, with onset since September 1 of this year. CDC has recognized an outbreak of blood stream infections (BSI) among users of outpatient HD centers. Fifteen cases have been identified to date in the at-risk group; 9 with *Stenotrophomonas maltophilia*, 1 with *Burkholderia cepacia*, 1 with both of the former organisms, 2 with *Candida parapsilosis* and 2 with both *Candida parapsilosis* and *Stenotrophomonas maltophilia*. Attention has been focused on the procedures surrounding reuse of dialyzers and a request has been made to identify additional cases in HD patients. If your laboratory has seen positive blood cultures with similar organisms (non-enteric gram-negative bacilli and yeast) in the past 3 months, please encourage reporting of the BSIs by your infection control personnel to Dawn Corning in the MDCH Bureau of Epidemiology at 517-335-8165.

Finally, this week we posted the SARS PCR consent form on the MDCH website, http://www.michigan.gov/mdch/0,1607,7-132-2945_5104-66297--,00.html, along with the specimen collection guidelines posted there last week. This same consent form, which we require in order to proceed with PCR testing only, is also available on the CDC website. We anticipate specimen collection guidelines will be updated in the near future, so please check the site after January 1, 2004. We hope to have soon a hot link on the main web page to expedite access to this information and that which we will soon be posting on influenza.